WT-1672C
GSM Remote Control Switch

USER MANUAL

INTRODUCTION

The GSM Remote Control Switch is a wireless remote control on / off switch that connect to the GSM cell phone network

It has 1 independent relay switches, these can be programmed to switch off or on whenever the GSM Remote Control Switch is called.

The GSM Control Switch will recognise an authorised telephone numbers calling it and action the call without answering. Therefore, there is no call charges incurred when calling it.

One Call to the SIM Card Number will switch the device OFF permanently.

Another Call to the SIM Card will switch the device ON permanently.

This system has been developed to minimize the need for over complicated programming.

The GSM Remote Control system supports timer function, the user can set schedule to turn on / off the switch. For example, put your pump, motor on a schedule. “Turn off in 5 minutes” , “turn on at 17:00, “turn on 1 year later”

This function is important to use in the renting and leasing industry of electrical appliances, heavy vehicle, and rental of site equipment to turn off the machines when off hire time completed

This function also important as the reminder to the owner to monitor the SIM Card expiry date. User can instruct the unit to trigger the relay in the specified times and sent the SMS to the user to keep the SIM Card active when expiry dates.

When first booting up the system you will see Blue LED Lights on the side of the Enclosure and it should light up when the Network is applied to the unit.

The Blue LED is the network Indicator and this will light up when attempting to log on to the network flash inconsistently until it locates the network.

A Phone Call to the SIM Card Number will now Latch the Relay permanently ON and Switch the device being Controlled On.

The Status of the Relay will remain as on, until the unit receives a second Call to the Unit of which will now Latch the Relay Permanently off.

Both Calls used to Latch the Relay either on or off are automatically disconnected, once the relays are activated and never incur any Network Call Costs.

Beside calls to switch off or on, the unit also can be permanently switch off and on by sending the unit a text message command

Step 1 - The simplest set up methods to set up Administrator number

Applied the "KISS Principle", keep it simple, stupid.

The GSM Remote Control Switch is easy to setup and use. Insert the SIM card, simply use your mobile phone call to the unit, your mobile phone number will automatically register as the 1st Administrators

You will receive the following SMS message from the unit –

Administrator:

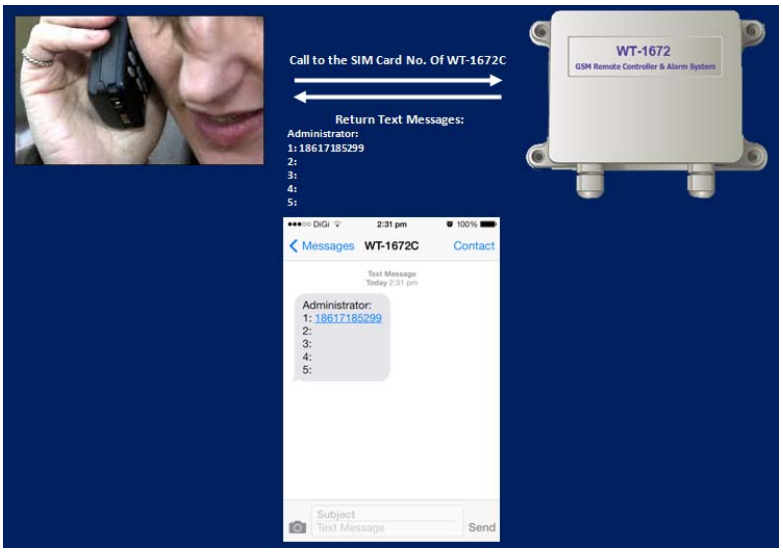
1: 18617185299 (your phone number)

2:

3:

4:

5:



You already finish the set up. Now, you can use your mobile phone call to the SIM Card number switch the device on permanently. Another call to the SIM Card will switch the device off permanently.

If you do not required to go through details setting, please process to STEP3 – Final Installation and Setup

Factory Reset

If you required to change the administrator number in the future, simply press the button “FACTORY” at the mother board until you hear the “du~” . This means the unit back to the factory default

This means you already reset the unit to factory default. Now you can start to call again to set the administrator.

This method of setting is only allowed to set 1 administrator number. If you wish to set more administrators, please go to Step 3 – Installation and set up

Step 2 - Advance Set Up

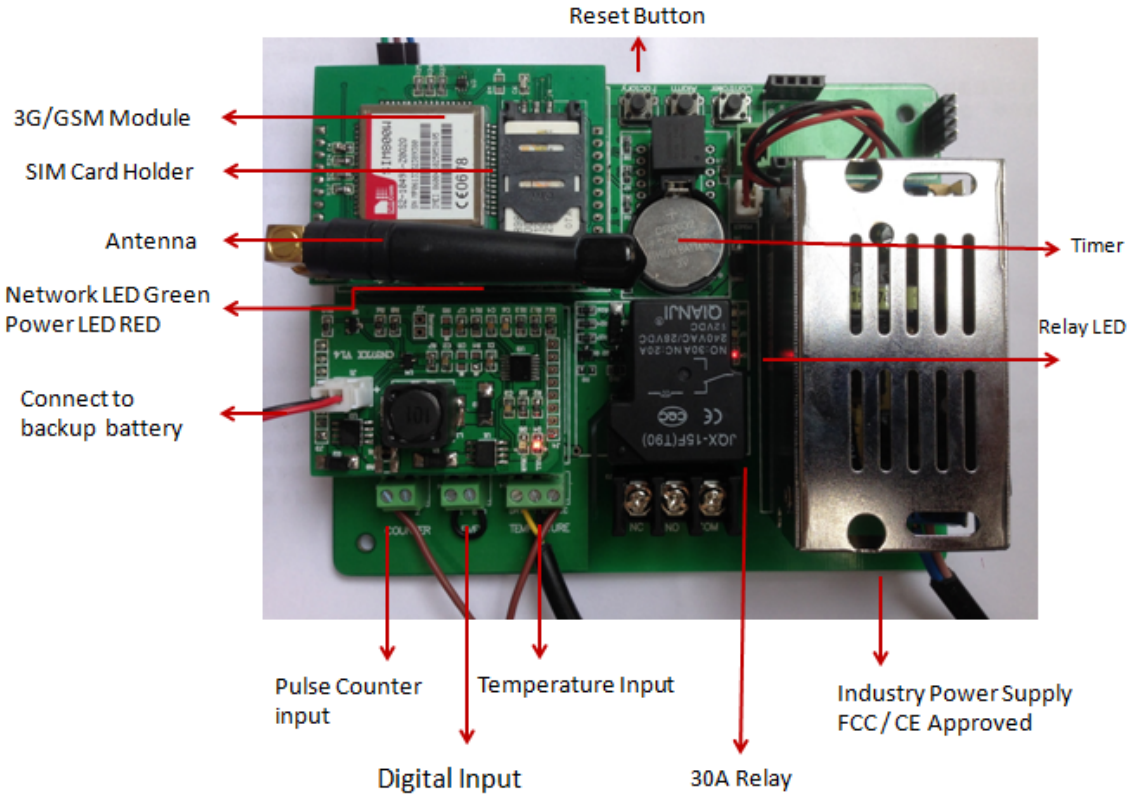
NO.	Description	Programming Code	SMS Texts Respond	Function
1	First Step of programming, you must enter the factory passwords of 1234 and go inside the programming mode. You only can perform the next commands after enter into programming mode	***0*1234#**	Congratulation!Within a certain time,you get administrator privileges !	When you enter *0*1234#, you enter into the programming mode. You must perform the next command in 10 minutes. If you did not do anything , the system will exist from programming mode.
2	If you decide to protect your privacy, You can change the factory password to your new password. Enter the factory password follow by your new password.	*0*1234*new password# For example if you need to change to the new PW of 1212. *0*1234*1212#	Change Password success!New password<1212>	Maximum 4 digits of passwords
3	This command is to add telephone number into the admin list. Only the number in the list can receive alarm texts message and active the relay output. You can add up to 5 telephone number into the admin list.	*1*1*telephone number# For example set Admin number 18617185300 into admin 2 *1*2*18617185300#	Administrator: 1: 15989427391 2: 3: 4: 5:	**Set Admin Numbers** *1*1* - set 1st admin number *1*2* - set 2nd admin number *1*3* - set 3rd admin number *1*4* - set 4th admin number *1*5* - set 5th admin number
4	This commands allow you to check what is the phone number you program in the list	*2*	Administrator: 1: 2: 18617185300 3: 4: 5:	
5	This command allow you to delete the admin number in the list.	*3*N# N = Admin number 1- 5 For example, if you want to delete admin no 2. just enter *3*2#	Administrator: 1: 2: 3: 4: 5:	**Delete Admin Number** Delete 1st admin *3*1# Delete 2nd admin *3*2# Delete 3rd admin *3*3# Delete 4th admin *3*4# Delete 5th admin *3*5#
6	This command allows you to check the relay status in ON or OFF Mode.	*4*	The reply will be either. Relays is <ON> Relays is <OFF>	

7	You must confirm the signal strength at site before you install the unit. If the signal too weak, the unit will not function properly.	*5*	CSQ<18>	**Check Signal Strength** CSQ 5 - 12 - Signal too weak, system not function CSQ 13 – 24 - Signal Good. System function well CSQ 25 - 32 Signal Excellent. System working well
8	No 8 and 9 is to set schedule to trigger relay You need to set No 8, Your current time Then set No 9 , the time to trigger the relay Relay only can trigger if know your time now	*12*(year)(month)(date)(time)(Day)# For example *12*2013101016054# Means : Year 2013, October, 10th, 16:05, Thursday	Time change OK!	**Set the date, time, date, week** This function to set the current time into the system The system must know your current time only can set the schedule time to turn on / off
9	After you finish the above step and you you decide to set trigger trigger the relay ON This command used when your relay status is OFF , if you need to trigger relay OFF, please use the No 10 setting	*13*1*(year)(month)(date)(time)(day)# For example *13*1*201310101633# Means : Year 2013, October, 10th, 16:33 times	Relay on time: 2013-10-10 16:33	**Scheduler ON** If your relay status is OFF and you decide to turn ON relay at specified times.
10	This command is trigger relay OFF. This command is only perform if you decide to switch OFF the relay in specified times	*13*0*(year)(month)(date)(time)(day)# For example *13*0*201310101633# Means : Year 2013, October, 10th, 16:33 times	Relay off time: 2013-10-10 16:33	**Scheduler Off** If your SIM Card expiry 90 days, you can just enter 90 days automatic trigger relay and sent you SMS text messages
11	You can check the what date and times you set to trigger relay	*14*	Relay on time: Relay off time: 2013-10-10 16:33	**Check Scheduler Time**
12	This command to delete the schedule which you set to trigger relay ON	*15*1#	Relay on time: Relay off time:	**Delete Scheduler ON time**

13	This commands to delete the schedule which you set to trigger relay OFF	*15*0#	Relay on time: Relay off time:	**Delete scheduler OFF time**
14	This command is factory default when you sending any command to the unit, the system will automatically reply with acknowledgement to prove that your setting is success.	*21*1#	Message switch <ON>	**SMS 0N** The Factory Default - system will acknowledge with SMS text message for every command you set.
15	If you decide not to allow the system to text you for any acknowledgement after you sent the command to the unit. You can switch OFF the text message. Some Customer request this function because texts reply involved call cost	*21*0#	Message switch <OFF>	**SMS 0FF** If you decide not to allow the system text you for any acknowledgement, SMS *21*0# to Switch OFF
16	Factory default is when you make call to trigger relay, the system will automatically reply text that your action is success.	*22*1#	State Switch <ON>	Factory Default not required for any setting the factory already set according to this command you can change to next command anytime
17	If you decide not to allow the system to text you for any acknowledgement after you call to the unit. You can switch OFF the text message. Some Customer request this function because texts reply involved call cost	*22*0#	State Switch <OFF>	
18	Factory Default is only allow the phone number which already program in the admin list can control the relay ON / OFF No setting required.	*23*1#	Mode switch <ON>	**Security mode** Defaults only the numbers in the list can text to the unit to control relay. If you decide anybody can control the unit, use the following commands

19	User can change to this command and anybody can call to the unit to control the relay ON / OFF	*23*0#	Mode switch <OFF>	**Open mode** When this commands set, anybody can call to the unit. to control the system. Please take note the Privacy and Security before you decide to switch to OPEN MODE
20	Instead of using call, user can sent SMS to control Relay ON. Some country , SMS call cost is better than call cost	*24*1#	Master relay <ON>	**SMS 0N** Use SMS Text Message to control relay ON
21	Instead of using call, User can sent SMS to control Relay OFF	*24*0#	Master relay <OFF>	**SMS 0FF** Use SMS Text Message to control Relay OFF

Step 3 - Installation



Insert the SIM card, to access the SIM card carrier gently push the button adjacent to it, insert the SIM card and carefully close the carrier

Connect the cable to terminals 220V & N ensuring positive is connected to terminal 200V, switch on the power supply , the red power LED will light indicating power is present, the blue network LED indicator will initially flash quickly, once logged onto the network , it will flash more slowly approximately one every 3 -4 seconds

It is recommended that the GSM Remote Control Switch be programmed to operate as required before final installation.

Connection Details

If you are unsure how to connect the device you wish to control refer to a qualified person

Connector	1	2	3
Description	Digital/Analogue Input		
	Pulse Counter	Digital Or Analogue	Temperature Input

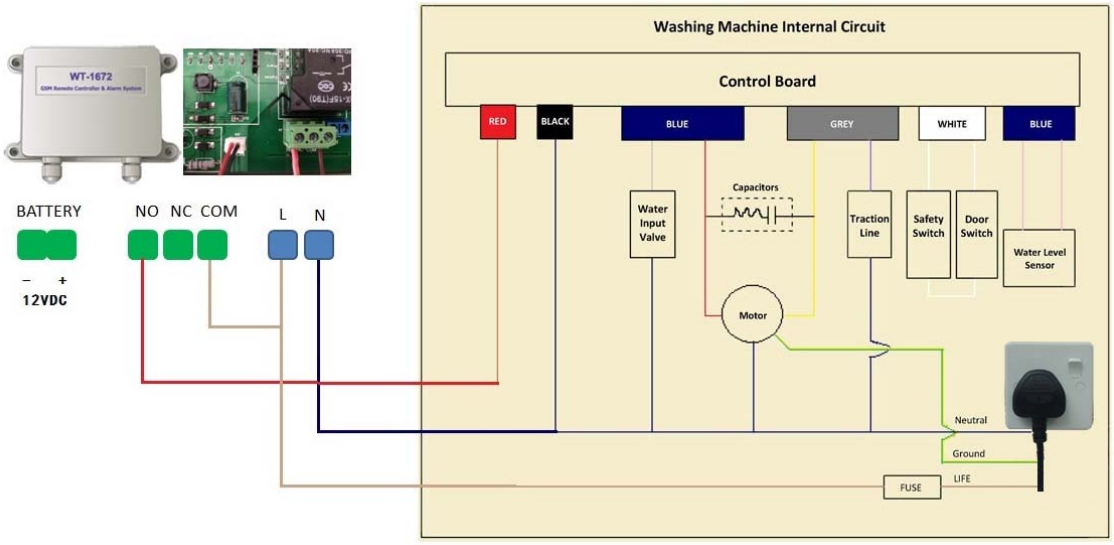
1	2	3
Relay Connection		
NO	NC	COM

4	5
110V-240V Industry Power Supply	
L	N

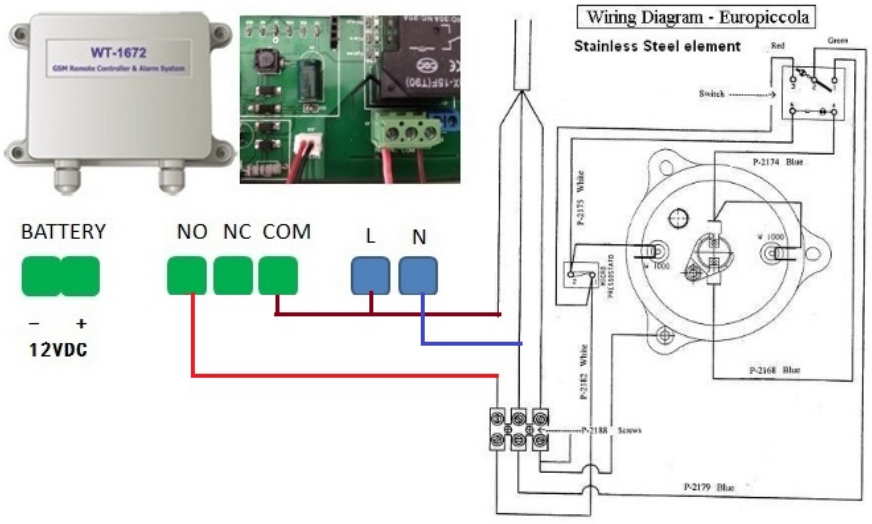
Note:

1. The Temperature Input is only work with Witura Temperature Sensors
2. The Connect 4 and 5 is inside the Industry Power Supply

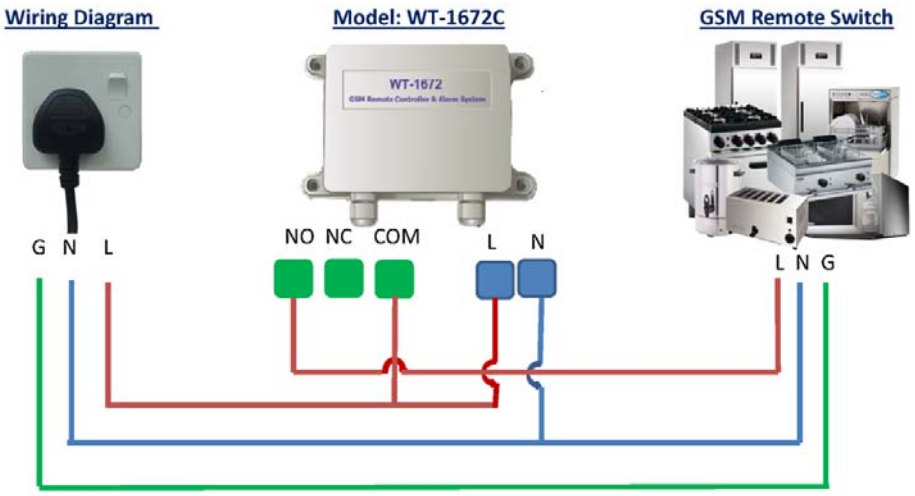
Example Connection with Washing Machine



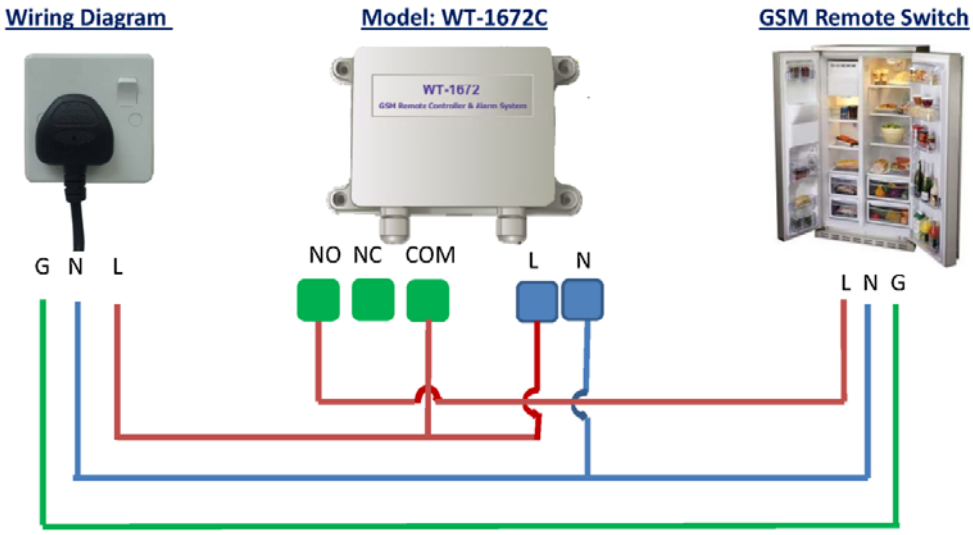
Example Connection with Coffee Machine



Example Connection with Catering Equipment



Example Connection with Freezer



Production Specifications

Operation Voltage	12 volts DC
Operating Current	Maximum 500mA, typically 55mA
Relay Contacts	1 x Normally Open and Normally Closed Contacts maximum switching capacity 20 amps @230v ac per relay
GSM Frequency MHz	GSM850, GSM900, GSM1800, GSM1900
Humidity	Less Than 80% RH
Operating Temperature **Physical Size**	-20c to 55c 130 x 100 x 50mm
Protection	IP 65 Weather Proof Casing
Approvals	C.E, FCC, ETSI

Preparing the SIM card

All new SIM cards have to be registered with the network provider before they can be used, usually by calling the network provider or registering on their website please refer to the instructions supplied with your SIM card.

During the registration procedure a confirmation code or text message is usually sent to the SIM cards telephone number, to be able to read and react to the message you will need to insert the SIM card into an unlocked mobile phone.

After successfully registering the SIM card, ensure there is sufficient credit on the card for programming confirmation texts to be sent from the GSM Remote Control Switch.

You MUST ensure that the PIN request is disabled from the SIM card before inserting it into the GSM Remote Control Switch. If you do not disable the PIN request the GSM Remote Control Switch will not work. If the PIN request is not disabled and the unit is switched on more than 3 times you will have to reset the PIN using the PUK code which will have to be obtained from the service provider.

To check the PIN request status of your SIM card, place the card in an unlocked mobile phone, switch the phone on. If you are able to make calls without entering a PIN number the PIN request is disabled. If a PIN number is requested refer to the instructions supplied with the SIM card and then look through the phones options for the 'disable PIN request' and disable it.

You MUST disable any voicemail that is set up on the SIM card; the codes shown below are for UK networks only, please refer to your network operator if outside the UK

Vodafone: 1210 >Send - you will hear 'order is accepted and confirmed'

O2 - Call 1760 >Send - you will hear 'order is accepted and confirmed'

T-Mobile - Call 222 and follow instructions

Orange - Call 450 and follow instructions

The SIM card is now ready to use

We recommend that if you are using a 'pay as you go' (PAYG) SIM card that you choose to automatically 'Top-Up' when the cards credit falls below a certain limit please contact your network provider or visit their website for more details.

Most but not a using post-paid SIM cards will be de-activated by the network if not used to make an outgoing voice call or send an SMS text message within a specific period. To prevent this simply send the GSM Remote Control Switch a text command *0*PW#, then *2*, it will reply by text message, do this once a month to keep the SIM card active.

Troubleshooting

1. Red power LED not alight	Ensure that your DC power supply is connected correctly, positive (+) to terminal 220v and negative (-) to terminal N. Verify 12 volts is present using a volt meter
2. Blue network LED flashing every one second and not every 3 seconds	Ensure your SIM card has been activated and that the PIN request has been disabled. If the unit is in a low signal strength area consider using an external GSM antenna or changing to another network provider
3. I am not receiving confirmation test messages when program the administrators number	Ensure your telephone number is in the Administrator list and that sending text messages to your number is enabled.
4. I am not receiving any text messages when initially programming the unit	Ensure the unit is connected to the GSM network by observing the blue network LED; it should be flashing once every 3 seconds (see 2 above). Ensure the SIM card has credit
5. The unit has been working for several months and has now stopped responding to calls and text commands	Most but not all PAY SIM cards will be de-activated by the network if not used to make an outgoing voice call or send an SMS text message within a specific period. To prevent this simply send a txt command *0*PW#, then *2*, it will reply by text message, do this once a month to keep the SIM card active

Warranty

Witura Technology Sdn Bhd warrantees the WT-1672C GSM Remote Control Switch against defective parts and workmanship. Witura Technology Sdn Bhd shall, at its option, repair or replace the defective equipment upon the return of such equipment to any Witura branch. This warranty applies ONLY to defects in components and workman-ship and NOT to damage due to causes beyond the control of Witura, such as incorrect voltage, lightning damage, mechanical shock, water damage, fire damage, or damage arising out of abuse and improper application of the equipment.

Note: Wherever possible, return only the PCB to Witura Service Centres.

DO NOT return the enclosure.

The WT-1672C is a product of

Witura Technology Sdn Bhd

And is manufactured by

Shenzhen Witura Telecommunications Co., Ltd.

WARNING

For safety reasons, only connect equipment with a telecommunications compliance label. This includes customer equipment previously labelled permitted or certified.